


[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)
Search: ☒ The ACM Digital Library ☐ The Guide


 Searching within **The ACM Digital Library** for: generat* jit IR processor ([start a new search](#))

Found 23 of 264,269

REFINE YOUR SEARCH
[Search Results](#)
[Related Journals](#)
[Related SIGs](#)
[Related Conferences](#)
▼ Refine by Keywords

Discovered Terms

▼ Refine by People
[Names](#)
[Institutions](#)
[Authors](#)
[Reviewers](#)
▼ Refine by Publications
[Publication Year](#)
[Publication Names](#)
[ACM Publications](#)
[All Publications](#)
[Content Formats](#)
[Publishers](#)
▼ Refine by Conferences
[Sponsors](#)
[Events](#)
[Proceeding Series](#)
ADVANCED SEARCH
☒ Advanced Search

FEEDBACK
☒ Please provide us with feedback

Found 23 of 264,269

Results 1 - 20 of 23

Sort by [relevance]

☒ [Save results to a Binder](#)
1 [Code generation for just-in-time compiled mobile collector agents](#)

John G. Allen, Jesse S. Jin

 May 2003 **VIP '02: Selected papers from the 2002 Pan-Sydney workshop**

Volume 22

Publisher: Australian Computer Society, Inc.

 Full text available: ☒ Pdf (38.50 KB)

[Additional Information: full citation, abstract](#)
Bibliometrics: Downloads (6 Weeks): 2, Downloads (12 Months): 13, Downloads (All Time): 13

This paper describes MGEN/x86, a toolkit that simplifies the process of code generation (JIT) compilers for the x86 series of processor. MGEN produces portable code for a user-defined sequence of instructions.

Keywords: JIT, assemble, collector, compiler, mobile, x86

2 [Dynamic optimization for efficient strong atomicity](#)
☒ Florian T. Schneider, Vijay Menon, Tatiana Shpeisman, Ali-Reza Adl-Tabatabaei
 October 2008 **OOPSLA '08: Proceedings of the 23rd ACM SIGPLAN conference on Object-oriented programming, systems, languages, and applications**
Publisher: ACM

☒ [Request Permissions](#)

 Full text available: ☒ Pdf (342.68 KB)

[Additional Information: full citation, abstract](#)
Bibliometrics: Downloads (6 Weeks): 21, Downloads (12 Months): 196, Downloads (All Time): 196

Transactional memory (TM) is a promising concurrency control alternative to lock-based memory model issues regarding TM semantics and exposed parallelism in safe, managed languages such as Java.

Keywords: code generation, compiler optimizations, dynamic optimization, virtual machines

Also published in:

 October 2008 **SIGPLAN Notices** Volume 43 Issue 10

3 [Secure virtual architecture: a safe execution environment for common](#)
☒ John Criswell, Andrew Lenharth, Dinakar Dhurjati, Vikram Adve

 October 2007 **SOSP '07: Proceedings of twenty-first ACM SIGOPS symposium on Operating systems principles**
Publisher: ACM

☒ [Request Permissions](#)

 Full text available: ☒ Flv (24:37 MIN), ☒ Pdf (383.30 KB) [Additional Information: full citation, abstract](#)

Bibliometrics: Downloads (6 Weeks): 31, Downloads (12 Months): 287, Downl

This paper describes an efficient and robust approach to provide a *safe* system, such as Linux, and all its applications. The approach, which we defines ...


Keywords: compiler, memory safety, operating systems, security, type machine

Also published in:

October 2007 **SIGOPS Operating Systems Review** Volume 41 Issue 6

- 4 **Design of the Java HotSpot™ client compiler for Java 6**
 Thomas Kotzmann, Christian Wimmer, Hanspeter Mössenböck, Thomas Ro
 May 2008 **Transactions on Architecture and Code Optimization (T**

Publisher: ACM  Request Permissions


Full text available:  Pdf (1.14 MB)

Additional Information: full citation, abs

Bibliometrics: Downloads (6 Weeks): 40, Downloads (12 Months): 433, Downl


Version 6 of Sun Microsystems' Java HotSpot™ VM ships with a redesign that includes several research results of the last years. The client compi used by default ...

Keywords: Java, compiler, deoptimization, intermediate representation register allocation

- 5 **Compiler and runtime support for efficient software transactional me**
 Ali-Reza Adi-Tabatabai, Brian T. Lewis, Vijay Menon, Brian R. Murphy, Brat
 June 2006 **PLDI '06: Proceedings of the 2006 ACM SIGPLAN conference**

implementation

Publisher: ACM  Request Permissions

Full text available:  Pdf (211.55 KB)

Additional Information: full citation, abs


Bibliometrics: Downloads (6 Weeks): 27, Downloads (12 Months): 373, Downl

Programmers have traditionally used locks to synchronize concurrent ac synchronization, however, has well-known pitfalls: using locks for fine-gr that already uses locks are both difficult ...


Keywords: code generation, compiler optimizations, locking, synchroni machines

Also published in:



June 2006 **SIGPLAN Notices** Volume 41 Issue 6

- 6 **RPython: a step towards reconciling dynamically and statically typed**
 Davide Ancona, Massimo Ancona, Antonio Cuni, Nicholas D. Matsakis
 October 2007 **DLS '07: Proceedings of the 2007 symposium on Dynamic la**


Publisher: ACM

Full text available:  Pdf (239.48 KB)Additional Information: [full citation](#), [abstract](#)**Bibliometrics:** Downloads (6 Weeks): 7, Downloads (12 Months): 91, Downloads

Although the C-based interpreter of Python is reasonably fast, implementation offers some advantages in terms of robustness and interoperability. Unprimarily designed to execute ...

Keywords: .NET, JVM, Python**7** [C and tcc: a language and compiler for dynamic code generation](#)
 Massimiliano Poletto, Wilson C. Hsieh, Dawson R. Engler, M. Frans Kaashoef
March 1999 **Transactions on Programming Languages and Systems**
Publisher: ACM Full text available:  Pdf (471.68 KB)Additional Information: [full citation](#), [abstract](#)**Bibliometrics:** Downloads (6 Weeks): 18, Downloads (12 Months): 113, Downloads




Dynamic code generation allows programmers to use run-time information expressiveness superior to those of static code. The 'C(Tick C) language efficient and high-level ...

Keywords: ANSI C, compilers, dynamic code generation, dynamic code**8** [Online optimizations driven by hardware performance monitoring](#)
 Florian T. Schneider, Mathias Payer, Thomas R. Gross
June 2007 **PLDI '07: Proceedings of the 2007 ACM SIGPLAN conference on implementation**
Publisher: ACM Full text available:  Pdf (224.36 KB)Additional Information: [full citation](#), [abstract](#)**Bibliometrics:** Downloads (6 Weeks): 17, Downloads (12 Months): 122, Downloads

Hardware performance monitors provide detailed direct feedback about source of information that a compiler may use for optimization. A JIT can such information because ...

Keywords: Java, dynamic optimization, hardware performance monitoring

Also published in:


June 2007 **SIGPLAN Notices** Volume 42 Issue 6**9** [Optimistic parallelism benefits from data partitioning](#)
 Milind Kuikarni, Keshav Pingali, Ganesh Ramanarayanan, Bruce Walter, Karim
March 2008 **ASPLOS XIII: Proceedings of the 13th international conference on languages and operating systems**
Publisher: ACM Full text available:  Flv (22.0 MIN),  Pdf (356.09 KB) Additional Information: [full citation](#)**Bibliometrics:** Downloads (6 Weeks): 15, Downloads (12 Months): 223, Downloads

Recent studies of irregular applications such as finite-element mesh gen shown that these applications have a generalized data parallelism arisin perform computations on ...

Keywords: data partitioning, irregular programs, locality, lock coarseni decomposition




Also published in:

March 2008 **SIGARCH Computer Architecture News** Volume 36 Issue 1
 March 2008 **SIGPLAN Notices** Volume 43 Issue 3
 March 2008 **SIGOPS Operating Systems Review** Volume 42 Issue 2

- 10** [Code Generation and Optimization for Transactional Memory Constr](#)
 Cheng Wang, Wei-Yu Chen, Youfeng Wu, Bratin Saha, Ali-Reza Adi-Tabatab
 March 2007 **CGO '07: Proceedings of the International Symposium on Co**
Publisher: IEEE Computer Society
 Full text available:  [Pdf](#) (365.03 KB) Additional Information: [full citation](#), [abst](#)

Bibliometrics: Downloads (6 Weeks): 10, Downloads (12 Months): 153, Downl




Transactional memory offers significant advantages for concurrency con the design and implementation of transactional memory constructs in ai languages pose a unique set of challenges ...

- 11** [Just-In-Time compilation on ARM processors](#)
 Michele Tartara, Simone Campanoni, Giovanni Agosta, Stefano Crespi Regh
 July 2009 **ICOOOLPS '09: Proceedings of the 4th workshop on the Imp**
Object-Oriented Languages and Programming Systems
Publisher: ACM  [Request Permissions](#)
 Full text available:  [Pdf](#) (604.92 KB) Additional Information: [full citation](#), [abst](#)

Bibliometrics: Downloads (6 Weeks): 15, Downloads (12 Months): 41, Downlo

This paper presents a Just-In-Time compilation system for ARM process starting from static compilation of the sources into CIL (Common Intern intermediate languages that are used ...

Keywords: ARM, dynamic compilation, embedded systems


- 12** [Tracing for web 3.0: trace compilation for the next generation web ar](#)
 Mason Chang, Edwin Smith, Rick Reitmaier, Michael Bebenita, Andreas Gal
 Franz
 March 2009 **VEE '09: Proceedings of the 2009 ACM SIGPLAN/SIGOPS inte**
environments
Publisher: ACM  [Request Permissions](#)
 Full text available:  [Pdf](#) (647.16 KB) Additional Information: [full citation](#), [abst](#)

Bibliometrics: Downloads (6 Weeks): 53, Downloads (12 Months): 291, Downl

Today's web applications are pushing the limits of modern web browser platform of choice for rich client-side applications has shifted the use of programs to large computationally ...


Keywords: dynamic compilation, dynamically typed languages, forth, j specialization

13 Enforcing isolation and ordering in STM

 Tatiana Shpeisman, Vijay Menon, Ali-Reza Adi-Tabatabai, Steven Baer, Katherine F. Moore, Bratin Saha

June 2007 **PLDI '07: Proceedings of the 2007 ACM SIGPLAN conference implementation**

Publisher: ACM  [Request Permissions](#)

Full text available:  Pdf (257.39 KB)

Additional Information: [full citation](#), [abstract](#)

Bibliometrics: Downloads (6 Weeks): 17, Downloads (12 Months): 208, Downl


Transactional memory provides a new concurrency control mechanism t synchronization. High-performance software transactional memory (STM *atomicity*: Accessing shared ...

Keywords: code generation, compiler optimizations, escape analysis, is transactional memory, virtual machines, weak atomicity


Also published in:

June 2007 **SIGPLAN Notices** Volume 42 Issue 6

14 Hardware atomicity for reliable software speculation

 Naveen Neelakantam, Ravi Rajwar, Suresh Srinivas, Uma Srinivasan, Craig June 2007 **ISCA '07: Proceedings of the 34th annual international symp**

Publisher: ACM

Full text available:  Pdf (805.55 KB)

Additional Information: [full citation](#), [abstract](#)

Bibliometrics: Downloads (6 Weeks): 13, Downloads (12 Months): 121, Downl


Speculative compiler optimizations are effective in improving both single consumption, but their implementation introduces significant complexity optimization scope, and ...

Keywords: Java, atomicity, checkpoint, isolation, optimization, specula


Also published in:

June 2007 **SIGARCH Computer Architecture News** Volume 35 Issue 2

15 Design and evaluation of dynamic optimizations for a Java just-in-tim

 Toshio Suganuma, Toshiaki Yasue, Motohiro Kawahito, Hideaki Komatsu, J July 2005 **Transactions on Programming Languages and Systems**

Publisher: ACM  [Request Permissions](#)

Full text available:  Pdf (1.60 MB)


Additional Information: [full citation](#), [abstract](#)

Bibliometrics: Downloads (6 Weeks): 21, Downloads (12 Months): 219, Downl

The high performance implementation of Java Virtual Machines (JVM) at toward employing a dynamic compilation system on the basis of online

between the compilation overhead ...




Keywords: JIT compiler, Recompilation, adaptive optimization, code sp
directed method inlining

- 16** [Revisiting Out-of-SSA Translation for Correctness, Code Quality and](#)
Benoit Boissinot, Alain Darté, Fabrice Pastello, Benoit Dupont de Dinechin,
March 2009 **CGO '09: Proceedings of the 2009 International Symposium** (C)
Publisher: IEEE Computer Society
Full text available:  [Pdf](#) (287.20 KB) [Additional Information: full citation, abstract](#)

Bibliometrics: Downloads (6 Weeks): 19, Downloads (12 Months): 80, Download

Static single assignment (SSA) form is an intermediate program represent
can be performed with fast and easy-to-implement algorithms. However
situations where the SSA variables ...

Keywords: SSA form, Compilers, JIT-compilation




- 17** [CodeBricks: code fragments as building blocks](#)
 Giuseppe Attardi, Antonio Cisternino, Andrew Kennedy
June 2003 **PEPM '03: Proceedings of the 2003 ACM SIGPLAN workshop**
program manipulation
Publisher: ACM  [Request Permissions](#)
Full text available:  [Pdf](#) (294.34 KB) [Additional Information: full citation, abstract](#)

Bibliometrics: Downloads (6 Weeks): 6, Downloads (12 Months): 38, Download

We present a framework for code generation that allows programs to m
level while the joining and splicing of executable code is carried out aut
The framework introduces ...

Keywords: domain specific language, generative programming, metap
program generation, program transformation, reflection


Also published in:
October 2003 **SIGPLAN Notices** Volume 38 Issue 10

- 18** [Techniques for obtaining high performance in Java programs](#)
 Ifat H. Kazi, Howard H. Chen, Berdenia Stanley, David J. Liha
September 2000 **Computing Surveys (CSUR)** , Volume 32 Issue 3
Publisher: ACM  [Request Permissions](#)
Full text available:  [Pdf](#) (816.13 KB) [Additional Information: full citation, abstract](#)


Bibliometrics: Downloads (6 Weeks): 77, Downloads (12 Months): 487, Downl

This survey describes research directions in techniques to improve the p
programming language. The standard technique for Java execution is in
portability of programs. ...

Keywords: Java, Java virtual machine, bytecode-to-source translators, interpreters, just-in-time compilers

- 19 [SciSim: a software performance estimation framework using source](#)
 Zhonglei Wang, Antonio Sanchez, Andreas Herkersdorf
 June 2008 **WOSP '08: Proceedings of the 7th international workshop on**

Publisher: ACM  [Request Permissions](#)


Full text available:  Pdf (1.18 MB)

[Additional Information: full citation, abst](#)


Bibliometrics: Downloads (6 Weeks): 17, Downloads (12 Months): 93, Downlo

Recently, software performance estimation based on source code instru
 literature. It achieves significant speedup without compromising accur
 However, much work still ...

Keywords: debugging information, microarchitecture, software perform
 instrumentation

- 20 [Demystifying magic: high-level low-level programming](#)
 Daniel Frampton, Stephen M. Blackburn, Perry Cheng, Robin J. Garner, Da
 March 2009 **VEE '09: Proceedings of the 2009 ACM SIGPLAN/SIGOPS inte**
 environments

Publisher: ACM  [Request Permissions](#)

Full text available:  Pdf (479.11 KB)

[Additional Information: full citation, abst](#)

Bibliometrics: Downloads (6 Weeks): 35, Downloads (12 Months): 196, Downl

The power of high-level languages lies in their abstraction over hardwar
 security, better reliability, and lower development costs. However, opac
 systems programmers, ...

Keywords: debugging, intrinsics, jikes rvm, magic, mmtk, systems pro

The ACM Portal is published by the Association for Computing Machinery. Copyright ©

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads:  [Adobe Acrobat](#)  [QuickTime](#)  [Windows Media Player](#)